

Declaration of Performance

Product Performance Statement

This declaration certifies that the product described herein complies with the relevant performance standards and specifications established for its intended use. The product has been tested and evaluated in accordance with applicable regulations, demonstrating consistent quality and reliability. All results confirm that the product meets or exceeds the outlined requirements, ensuring suitability and safety for its designated applications, in accordance with the product technical datasheet.

No.: DOP-GFRP-EPOXY-OVERBRAID-2026/001 **Date of issue:** 16 March 2026

- Unique identification code of the product-type:** Overbraided Glass Fibre Reinforced Polymer (GFRP) Rebar with Epoxy Matrix (Straight and bent bars, nominal diameters 4 –32 mm, circular cross-section with overbraided surface for enhanced concrete bond; fibre volume content ≥ 70 %; thermosetting epoxy resin matrix).
- Intended use:** Internal reinforcement of non-structural concrete elements in new or existing reinforced concrete structures, including as post-installed reinforcement. Not for use in fire situations requiring specific fire resistance beyond declared performance.
- Manufacturer:** The Light Rebar Company, Rua Pe. Antonio Caldas n^o51, 4810-246, Guimarães, Portugal, www.thelrc.eu, with production site at Tv. Dos Mártires n^o12 4800-054, Guimarães, Portugal
- Authorised representative:** Jorge M. M. Fontes

CHARACTERISTIC (Minimum Values Achieved)	BCR	CNR-DT 203R1/2025
Characteristic Tensile Strength (MPa)	>1032	N/A
Longitudinal Elastic Modulus (GPa)	>45	N/A
Tensile elongation (%)	>2.40	N/A
Bond strength in concrete by pull-out testing (MPa)	>13.2	≥ 7.0 - OK
Transverse Shear Strength (MPa)	>164	≥ 115 - OK
Interlaminar Shear Strength (MPa)	>62.5	≥ 38 - OK
Glass Transition Temperature (°C)	120	≥ 100 - OK
Maximum Service Temperature (°C)	88.2	N/A
Tensile Strength reduction (% loss in alkali conditioning)	8	≤ 40 % - OK
Density (g/cm ³)	2 + 0.4	N/A
Longitudinal thermal expansion coefficient (10 ⁻⁶ /°C)	6.3 - 8.7	N/A
Transverse thermal expansion coefficient (10 ⁻⁶ /°C)	34.9 - 35.1	N/A
Fire Reaction (Class)	C / s2 / d0	N/A

Classification Ef / ftk0	GFRP Rebars			
	DN 6	DN 8	DN 10	DN 12
	E 50/1000	E 50/1000	E 45/850	E 60/1100

(Source: PRELIMINARY TECHNICAL ASSESSMENT OF GLASS FIBRE REINFORCED POLYMER BARS FOR USE AS CONCRETE REINFORCEMENT, LNEC, Report 000/2025-DM/NMOM, November 2025)

Note 1: All declared values are specific to the product geometry, fibre type (ECR-glass), epoxy matrix formulation, and overbraided surface treatment. Full detailed performance tables (including per-diameter values, statistical evaluation per EN 1990 Annex D, and test reports)

Note 2: All products meet the standards of the Italian Design code CNR-DT-203-R1-2025, classified as per the above table.

The performance of the product identified above is in conformity with the set of declared parameters.

This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer:



Jorge M. M. Fontes

CEO

Guimarães, 16.03.2026